purging must meet the requirements of §63.11925(a) and (b).

- (2) Each opening in the pressure vessel must be equipped with a closure device designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps or other open spaces in the closure device or between the perimeter of the opening and the closure device.
- (3) All potential leak interfaces must be monitored annually for leaks using the procedures specified in 63.11915 and you may adjust for background concentration. You must comply with the recordkeeping provisions specified in 63.11990(b)(4) and the reporting provisions specified in 63.11985(a)(1), (b)(1), and (b)(10).
- (4) Pressure vessel closure devices must not discharge to the atmosphere. Any such release (e.g., leak) constitutes a violation of this rule. You must submit to the Administrator as part of your compliance report the information specified in §63.11985(b)(10). This report is required even if you elect to follow the procedures specified in §63.11895 to establish an affirmative defense

§ 63.11915 What are my compliance requirements for equipment leaks?

For equipment in HAP service (as defined in §63.12005), you must comply with the requirements in paragraphs (a) through (c) of this section.

- (a) Requirement for certain equipment in subpart UU of this part. You must comply with §63.1020 through 63.1025, 63.1027, 63.1029 through 63.1032, and 63.1034 through 63.1039 of subpart UU of this part.
- (b) Requirements for pumps, compressors, and agitators. You must meet the requirements of paragraphs (b)(1) and (2) of this section. For each type of equipment specified in paragraphs (b)(1) and (2) of this section, you must also meet the requirements of paragraph (a) of this section.
- (1) Rotating pumps. HAP emissions from seals on all rotating pumps in HAP service are to be minimized by either installing sealless pumps, pumps with double mechanical seals or equivalent equipment, or by complying with the requirements of 40 CFR part 63,

- subpart UU for rotating pumps. If double mechanical seals are used, emissions from the seals are to be minimized by maintaining the pressure between the two seals so that any leak that occurs is into the pump; by complying with §63.11925(a) and (b); or equivalent equipment or procedures approved by the Administrator.
- (2) Reciprocating pumps, rotating compressors, reciprocating compressors and agitators. HAP emissions from seals on all reciprocating pumps, rotating compressors, reciprocating compressors and agitators in HAP service are to be minimized by either installing double mechanical seals or equivalent equipment, or by complying with the requirements of 40 CFR part 63, subpart UU for reciprocating pumps, rotating compressors, reciprocating compressors and/or agitators. If double mechanical seals are used, HAP emissions from the seals are to be minimized by maintaining the pressure between the two seals so that any leak that occurs is into the pump; by complying with §63.11925(a) and (b); or equivalent equipment or procedures approved by the Administrator.
- (c) Requirements for pressure relief devices. For pressure relief devices in HAP service, as defined in §63.12005, you must meet the requirements of this paragraph (c) and paragraph (a) of this section, you must comply with the recordkeeping provisions in §63.11990(c), and you must comply with the reporting provisions in §§63.11985(a)(2), (b)(2) and (c)(7).
- (1) For pressure relief devices in HAP service that discharge directly to the atmosphere without first meeting the process vent emission limits in Table 1 or 2 to this subpart by routing the discharge to a closed vent system and control device designed and operated in accordance with the requirements in §§ 63.11925 through 63.11950, you must install, maintain, and operate release indicators as specified in paragraphs (c)(1)(i) and (ii) of this section. Any release to the atmosphere without meeting the process vent emission limits in Table 1 or 2 to this subpart, constitutes a violation of this rule. You must subthe report specified §63.11985(c)(7), as described in paragraph (c)(1)(iii) of this section.

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- (i) A release indicator must be properly installed on each pressure relief device in such a way that it will indicate when an emission release has occurred.
- (ii) Each indicator must be equipped with an alert system that will notify an operator immediately and automatically when the pressure relief device is open. The alert must be located such that the signal is detected and recognized easily by an operator.
- (iii) For any instance that the release indicator indicates that a pressure relief device is open, you must notify operators that a pressure release has occurred, and, within 10 days of the release, you must submit to the Administrator the report specified in §63.11985(c)(7). This report is required even if you elect to follow the procedures specified in §63.11895 to establish an affirmative defense.
- (2) For pressure relief devices in HAP service that discharge directly to a closed vent system and control device designed and operated in accordance with the requirements in §§ 63.11925 through 63.11950, and are required to meet process vent emission limits in Table 1 or 2 to this subpart. Any release to the atmosphere without meeting the process vent emission limits in Table 1 or 2 to this subpart, constitutes a violation of this rule. You must notify operators that a pressure release has occurred, and, within 10 days of the release, you must submit to the Administrator the report specified in §63.11985(c)(7). This report is required even if you elect to follow the procedures specified in §63.11895(b) to establish an affirmative defense.

§ 63.11920 What are my initial and continuous compliance requirements for heat exchange systems?

- (a) Except as provided in paragraph (b) of this section, you must perform monitoring to identify leaks of volatile organic compounds from each heat exchange system in HAP service subject to the requirements of this subpart according to the procedures in paragraphs (a)(1) through (4) of this section.
- (1) Monitoring locations for closed-loop recirculation heat exchange systems. For each closed loop recirculating heat exchange system, you must collect and

- analyze a sample from the location(s) described in either paragraph (a)(1)(i) or (ii) of this section.
- (i) Each cooling tower return line prior to exposure to air for each heat exchange system in HAP service.
- (ii) Selected heat exchanger exit line(s) so that each heat exchanger or group of heat exchangers within a heat exchange system is covered by the selected monitoring location(s).
- (2) Monitoring locations for oncethrough heat exchange systems. For each once-through heat exchange system, you must collect and analyze a sample from the location(s) described in paragraph (a)(2)(i) of this section. You may also elect to collect and analyze an additional sample from the location(s) described in paragraph (a)(2)(ii) of this section.
- (i) Selected heat exchanger exit line(s) so that each heat exchanger or group of heat exchangers in HAP service within a heat exchange system is covered by the selected monitoring location(s).
- (ii) The inlet water feed line for a once-through heat exchange system prior to any heat exchanger. If multiple heat exchange systems use the same water feed (i.e., inlet water from the same primary water source), you may monitor at one representative location and use the monitoring results for that sampling location for all heat exchange systems that use that same water feed.
- (3) Monitoring method. You must determine the total strippable volatile organic compounds concentration or vinyl chloride concentration at each monitoring location using one of the analytical methods specified in paragraphs (a)(3)(i) through (iii) of this section.
- (i) Determine the total strippable volatile organic compounds concentration (in parts per million by volume) as methane from the air stripping testing system using Modified El Paso Method (incorporated by reference, see §63.14) using a flame ionization detector analyzer.
- (ii) Determine the total strippable volatile organic compounds concentration (in parts per billion by weight) in the cooling water using Method 624 at 40 CFR part 136, appendix A. The target